

Georgia C. Eizenga

USDA-ARS Dale Bumpers National Rice Research Center, Stuttgart, Arkansas

Title: Development of mapping populations from sheath blight resistant *O. nivara*

Various wild species of *Oryza* have been identified having excellent resistance to sheath blight disease. We have confirmed this resistance in greenhouse Inoculation tests and have identified an *O. nivara* accession (IRGC 100898) having excellent resistance for further research. This accession was crossed with the moderately susceptible US cultivar Bengal and genetic populations for the study of inheritance of resistance were developed. Molecular markers will be used to evaluate the populations and resistance QTL, not associated with height or heading (i.e. true resistance genes, not traits that allow escape from disease pressure), will be identified. Additional *Oryza* spp. accessions will be screened for SB resistance and mapping populations will be developed using the widely grown US cultivar, Cocodrie, which is very susceptible to the disease. As a result of this research, novel SB resistant genes will be identified and incorporated into cultivars that are well adapted to the US and can be used by breeders for further varietal improvement.